

AMENDMENTS TO THE CLAIMS

Claims 1-49 are pending in the instant application. Claims 1-6, 8-14, 16-22, 24-30, 32-38, 40-46, and 48-49 have been amended. The Applicant requests reconsideration of the claims in view of the following amendments reflected in the listing of claims.

Listing of claims:

1. (Currently Amended) A method for processing television signals, the method comprising:

receiving, over the air, an inband signal by a single chip integrated DTV receiver;

demodulating said received inband signal within said single chip DTV receiver;

receiving, over the air, an out-of-band signal corresponding to said received inband signal by said single chip integrated DTV receiver; and

processing said received out-of-band signal within said single chip integrated DTV receiver.

2. (Currently Amended) The method according to claim 1, wherein said received inband signal is one or more of a VSB signal, a NTSC signal, and a QAM signal.

3. (Currently Amended) The method according to claim 1, further comprising:

if said received inband signal is a VSB signal, error correcting said demodulated received inband signal within said single chip integrated DTV receiver to generate an error corrected ATSC compliant signal; and

if said received inband signal is a QAM signal, error correcting said demodulated received inband signal within said single chip integrated DTV receiver to generate an error corrected ITU-T J.83 compliant signal.

4. (Currently Amended) The method according to claim 3, wherein said ITU-T J.83 compliant signal is compliant with ~~at least one of~~ one or more of Annex A, Annex B₁ and Annex C of ITU-T J.83.

5. (Currently Amended) The method according to claim 3, further comprising:

if said received inband signal is a VSB signal, equalizing said error corrected ATSC signal within said single chip integrated DTV receiver; and

if said received inband signal is a QAM signal, equalizing said error corrected ITU-T J.83 compliant signal within said single chip integrated DTV receiver.

6. (Currently Amended) The method according to claim 1, further comprising generating from within said single chip integrated DTV receiver, an output MPEG transport stream from said demodulated received inband signal.

7. (Original) The method according to claim 6, wherein said output MPEG transport stream is a serial MPEG transport stream or a parallel MPEG transport stream.

8. (Currently Amended) The method according to claim 1, further comprising ~~if said received inband signal is an NTSC signal~~, decoding said demodulated received inband signal within said single chip integrated DTV receiver, if said received inband signal is an NTSC signal.

9. (Currently Amended) The method according to claim 8, further comprising generating from within said single chip integrated DTV receiver, at ~~least one of~~ one or more of an I²S audio output, a stereo audio output, a monaural audio output, and a multiplexed baseband audio output from said decoded demodulated received inband signal.

10. (Currently Amended) The method according to claim 1, further comprising ~~if said received signal is an NTSC signal,~~ generating a composite NTSC signal from said demodulated received signal within said single chip integrated DTV receiver, if said received signal is an NTSC signal.

11. (Currently Amended) The method according to claim 1, further comprising demodulating said received out-of-band signal within said single chip integrated DTV receiver.

12. (Currently Amended) The method according to claim 11, further comprising demodulating said received out-of-band signal within said single chip integrated DTV receiver utilizing a QPSK demodulator.

13. (Currently Amended) The method according to claim 11, further comprising error correcting said demodulated received out-of-band signal within said single chip integrated DTV receiver.

14. (Currently Amended) The method according to claim 1, further comprising generating an output out-of-band transport stream from said processed received out-of-band signal from within said single chip integrated DTV receiver.

15. (Original) The method according to claim 14, wherein said out-of-band transport stream comprises CableCard encryption and security data.

16. (Currently Amended) The method according to claim 1, further comprising controlling said demodulating of said received inband signal via an on-chip processor integrated within said single chip integrated DTV receiver.

17. (Currently Amended) A machine-readable storage having stored thereon, a computer program having at least one code section for processing television signals, the at least one code section being executable by a machine for causing the machine to perform steps comprising:

receiving, over the air, an inband signal by a single chip integrated DTV receiver;

demodulating said received inband signal within said single chip DTV receiver;

receiving, over the air, an out-of-band signal corresponding to said received signal by said single chip integrated DTV receiver; and

processing said received out-of-band signal within said single chip integrated DTV receiver.

18. (Currently Amended) The machine-readable storage according to claim 17, wherein said received signal is one or more of a VSB signal, a NTSC signal, and a QAM signal.

19. (Currently Amended) The machine-readable storage according to claim 17, ~~further~~ comprising:

code for error correcting said demodulated received inband signal within said single chip integrated DTV receiver to generate an error corrected ATSC compliant signal, if said received inband signal is a VSB signal; and

code for error correcting said demodulated received inband signal within said single chip integrated DTV receiver to generate an error corrected ITU-T J.83 compliant signal, if said received inband signal is a QAM signal.

20. (Currently Amended) The machine-readable storage according to claim 19, wherein said ITU-T J.83 compliant signal is compliant with ~~at least one of~~ one or more of Annex A, Annex B₁ and Annex C of ITU-T J.83.

21. (Currently Amended) The machine-readable storage according to claim 19, ~~further~~ comprising:

code for equalizing said error corrected ATSC signal within said single chip integrated DTV receiver, if said received inband signal is a VSB signal; and

code for equalizing said error corrected ITU-T J.83 compliant signal within said single chip integrated DTV receiver, if said received inband signal is a QAM signal.

22. (Currently Amended) The machine-readable storage according to claim 17, ~~further~~ comprising code for generating from within said single chip integrated

DTV receiver, an output MPEG transport stream from said demodulated received inband signal.

23. (Original) The machine-readable storage according to claim 22, wherein said output MPEG transport stream is a serial MPEG transport stream or a parallel MPEG transport stream.

24. (Currently Amended) The machine-readable storage according to claim 17, ~~further~~ comprising code for decoding said demodulated received signal within said single chip integrated DTV receiver, if said received inband signal is an NTSC signal.

25. (Currently Amended) The machine-readable storage according to claim 24, ~~further~~ comprising code for generating from within said single chip integrated DTV receiver, ~~at least one of~~ one or more of an I²S audio output, a stereo audio output, a monaural audio output, and a multiplexed baseband audio output from said decoded demodulated received inband signal.

26. (Currently Amended) The machine-readable storage according to claim 17, ~~further~~ comprising code for generating a composite NTSC signal from said demodulated received signal within said single chip integrated DTV receiver, if said received inband signal is an NTSC signal.

27. (Currently Amended) The machine-readable storage according to claim 17, ~~further~~ comprising code for demodulating said received out-of-band signal within said single chip integrated DTV receiver.

28. (Currently Amended) The machine-readable storage according to claim 27, ~~further~~ comprising code for demodulating said received out-of-band signal within said single chip integrated DTV receiver utilizing a QPSK demodulator.

29. (Currently Amended) The machine-readable storage according to claim 27, ~~further~~ comprising code for error correcting said demodulated received out-of-band signal within said single chip integrated DTV receiver.

30. (Currently Amended) The machine-readable storage according to claim 17, ~~further~~ comprising code for generating an output out-of-band transport stream

from said processed received out-of-band signal from within said single chip integrated DTV receiver.

31. (Original) The machine-readable storage according to claim 30, wherein said out-of-band transport stream comprises CableCard encryption and security data.

32. (Currently Amended) The machine-readable storage according to claim 17, further comprising code for controlling said demodulating of said received inband signal via an on-chip processor integrated within said single chip integrated DTV receiver.

33. (Currently Amended) A system for processing television signals, the system comprising:

an inband analog front end integrated in a single chip integrated DTV receiver that receives over the air, an inband signal;

a demodulator within said single chip DTV receiver that demodulates said received inband signal;

an out-of-band analog front end integrated in said single chip integrated DTV receiver that receives, over the air, an out-of-band signal corresponding to said received signal by; and

an out-of band receiver integrated within said single chip integrated DTV receiver that processes said received out-of-band signal.

34. (Currently Amended) The system according to claim 33, wherein said received inband signal is one or more of a VSB signal, a NTSC signal, and a QAM signal.

35. (Currently Amended) The system according to claim 33, further comprising:

an ATSC FEC that error corrects said demodulated received inband signal within said single chip integrated DTV receiver to generate an error corrected ATSC compliant signal, if said received inband signal is a VSB signal; and

and ITU-T J.83 compliant FEC that error corrects said demodulated received inband signal within said single chip integrated DTV receiver to generate an error corrected ITU-T J.83 compliant signal, if said received signal is a QAM signal.

36. (Currently Amended) The system according to claim 35, wherein said ITU-T J.83 compliant signal is compliant with ~~at least one of~~ one or more of Annex A, Annex B₁ and Annex C of ITU-T J.83.

37. (Currently Amended) The system according to claim 35, further comprising:

at least one equalizer that equalizes said error corrected ATSC signal within said single chip integrated DTV receiver, if said received inband signal is a VSB signal; and

said at least one equalizer equalizes said error corrected ITU-T J.83 compliant signal within said single chip integrated DTV receiver, if said received inband signal is a QAM signal.

38. (Currently Amended) The system according to claim 33, further comprising ~~[[and]]~~ an inband output interface that generates from within said single chip integrated DTV receiver, an output MPEG transport stream from said demodulated received inband signal.

39. (Original) The system according to claim 38, wherein said output MPEG transport stream is a serial MPEG transport stream or a parallel MPEG transport stream.

40. (Currently Amended) The system according to claim 33, further comprising a BTSC decoder that decodes said demodulated received inband signal within said single chip integrated DTV receiver, if said received inband signal is an NTSC signal.

41. (Currently Amended) The system according to claim 40, further comprising ~~at least one of~~ one or both of said BTSC decoder and an audio DAC that generates from within said single chip integrated DTV receiver, ~~at least one of~~ one or more of an I²S audio output, a stereo audio output, a monaural audio output, and a multiplexed baseband audio output from said decoded demodulated received inband signal.

42. (Currently Amended) The system according to claim 33, further comprising a DAC that generates a composite NTSC signal from said demodulated received inband signal within said single chip integrated DTV receiver, if said received inband signal is an NTSC signal.

43. (Currently Amended) The system according to claim 33, further comprising a demodulator that demodulates said received out-of-band signal within said single chip integrated DTV receiver.

44. (Currently Amended) The system according to claim 33, further comprising a QPSK demodulator that demodulates said received out-of-band signal within said single chip integrated DTV receiver-utilizing.

45. (Currently Amended) The system according to claim 43, further comprising ~~at least one of~~ one or both of a DVS-167 compliant FEC and a DVS-178 compliant FEC that error corrects said demodulated received out-of-band signal within said single chip integrated DTV receiver.

46. (Currently Amended) The system according to claim 33, further comprising an out-of-band output interface that generates an output out-of-band transport stream from said processed received out-of-band signal from within said single chip integrated DTV receiver.

47. (Original) The system according to claim 46, wherein said out-of-band transport stream comprises CableCard encryption and security data.

48. (Currently Amended) The system according to claim 33, further comprising an on-chip processor that controls said demodulating of said received inband signal within said single chip integrated DTV receiver.

49. (Currently Amended) The system according to claim 33, further comprising ~~further comprising~~ a third overtone crystal which generates a 54 MHz clock signal which is coupled to said inband analog front end.